This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method of producing a cladding tube for nuclear fuel for a nuclear boiling water reactor, which method comprises the following steps:

forming a tube which comprises an outer cylindrical component [[(10)]] mainly containing zirconium and an inner cylindrical component [[(20)]] metallurgically bonded to the outer component [[(10)]], wherein also the inner component [[(20)]] at least mainly contains zirconium, wherein the material compositions of the inner component [[(20)]] and the outer component [[(10)]] are selected such that they differ from each other and such that the inner component [[(20)]] has a lower recrystallization temperature than the outer component ~~(10), characterised in that~~ ; and

after that the cladding tube has been formed ~~according to the above and after possible rolling steps with there between occurring heat treatments, the cladding tube is final annealed~~ finally annealing the cladding tube at a temperature and during a time such that the inner component [[(20)]] substantially completely recrystallizes and such that the outer component [[(10)]] partly recrystallizes but to a lower extent than the inner component [[(20)]].

2. (currently amended) A method according to claim 1, wherein said final ~~anneal~~ annealing is carried out such that the degree of recrystallization in the outer component [[(10)]] is higher than 50 %.

3. (currently amended) A method according to claim 2, wherein said final ~~anneal~~ annealing is carried out such that the degree of recrystallization in the inner component [[(20)]] is substantially or completely 100 % and the degree of recrystallization in the outer component [[(10)]] is between 50 % and 96%.

4. (currently amended) A method according to ~~any of the preceding claims~~ claim 1, wherein the inner component [[(20)]] does not contain more than 1500 ppm Fe.

5. (currently amended) A method according to ~~any of the preceding claims~~ claim 1, wherein the inner component [[(20)]] does not contain more than 1000 ppm O.

6. (currently amended) A method according to ~~any of the preceding claims~~ claim 1, wherein the outer component [[(10)]] has a composition which is completely or substantially according to Zircaloy 2 or Zircaloy 4.

7. (currently amended) A method according to ~~any of the preceding claims~~ claim 1, wherein the inner component [[(20)]] contains between 0.1 and 01 percentage by weight Sn.

8. (currently amended) A method according to claim 7, wherein the inner component [[(20)]] contains 0.1 to 0.4 percentage by weight Sn, 400 to 1500 ppm Fe, less than 600 ppm 0 and the rest Zr, except for impurities of a content that does not exceed that which is normally accepted in Zr or Zr-alloys for applications in nuclear reactors.

9. (currently amended) A method according to ~~any of the preceding claims~~ claim 1, wherein the inner component [[(20)]] has a thickness such that it constitutes between 3% and 30% of the total thickness of the cladding tube.

10. (currently amended) A method according to ~~any of the preceding claims~~ claim 1, wherein the final ~~anneal~~ annealing is carried out at a temperature of between 485°C and 550°C.

11. (currently amended) A method according to ~~any of the preceding claims~~ claim 1, wherein the final ~~anneal~~ annealing is carried out during 1 h to 6h.

12. (currently amended) Use of a cladding tube produced according to the method according to ~~any of the preceding claims~~ claim 1 in a fuel assembly for a nuclear boiling water reactor.

13. (currently amended) A cladding tube for nuclear fuel for a nuclear boiling water re-actor, which cladding tube comprises:

an outer cylindrical component [[(10)]] mainly containing zirconium[[,]] ; and

an inner cylindrical component [[(20)]] which at least mainly contains zirconium and which is metallurgically bonded to the outer component [[(10)]], wherein the material compositions of the inner component [[(20)]] and the outer component [[(10)]] differ from each other and are such that the inner component [[(20)]] has a lower re-crystallization temperature than the outer component ~~(10), characterised in that~~ ; wherein

the inner component [[(20)]] has a substantially completely recrystallized structure and the outer component [[(10)]] has a structure such that it is partly recrystallized but not to the same extent as the inner component [[(20)]].

14. (currently amended) A cladding tube according to claim 13, wherein the degree of recrystallization in the outer component [[(10)]] is higher than 50 %.

15. (currently amended) A cladding tube according to claim 14, wherein the degree of recrystallization in the inner component [[(20)]] is substantially or completely 100% and the degree of recrystallization in the outer component [[(10)]] is between 50 %and 96 %.

16. (currently amended) A cladding tube according to any of the ~~claims 13-15~~ claim 13, wherein the inner component [[(20)]] does not contain more than 1500 ppm Fe.

17. (currently amended) A cladding tube according to any of the ~~claims 13-16~~ claim 13, wherein the inner component [[(20)]] does not contain more than 1000 ppm O.

18. (currently amended) A cladding tube according to any of the ~~claims 13-17~~ claim 13, wherein the outer component [[(20)]] has a composition which is completely or substantially according to Zircaloy 2 or Zircaloy 4.

19. (currently amended) A cladding tube according to any of the ~~claims 13-18~~ claim 13, wherein the inner component [[(20)]] contains between 0.1 and 0.7 percentage by weight Sn.

20. (currently amended) A cladding tube according to claim 19, wherein the inner component [[(20)]] contains 0.1 to 0.4 percentage by weight Sn, 400 to 1500 ppm Fe, less than 600 ppm 0 and the rest Zr, except for impurities of a content that does not exceed that which is normally accepted in Zr or Zr-alloys for applications in nuclear reactors.

21. (currently amended) A cladding tube according to ~~any of the claims 13-20~~ claim 13, wherein the inner component [[(20)]] has a thickness such that it constitutes between 3 % and 30 %of the total thickness of the cladding tube.

22. (currently amended) A fuel assembly for a nuclear boiling water reactor, comprising:

an enclosing tube [[(2),]] ; and

a plurality of cladding tubes according to ~~any of the claims 13-21~~ claim 13 filled with nuclear fuel suitable for such cladding tubes for a boiling water reactor, wherein said plurality of cladding tubes are arranged inside said enclosing tube [[(2)]].